

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Advanced Machining Services

Oregon Manufacturing Extension Partnership

Advanced Machining Services Goes Lean

Client Profile:

Advanced Machining Services (AMS) is a full-service machining shop excelling in CNC (Computer Numerically Controlled) machining and design and specializing in precision-machined components from the aerospace industry to custom projects. AMS currently employs 9 people at its facility in Bend, Oregon.

Situation:

AMS's owners Craig Achatz and Mark Wolfkeil had been able to maintain a successful business even during the economic downturn. They wanted to grow and improve their business, but knew that their current way of running operations would not support their long term goals. AMS learned of a new Lean Manufacturing pilot program for small rural businesses in Central Oregon. Funded by a Governor's Strategic Training Fund grant, the program's Lean services were to be provided by the Oregon Manufacturing Extension Partnership (OMEP), a NIST MEP network affiliate. AMS contacted OMEP with the goal of learning Lean as a business operating philosophy to improve all aspects of their business and to enable them to grow in a positive, informed, and profitable way.

Solution:

OMEP began the engagement with AMS by completing a thorough assessment including a detailed business questionnaire, a detailed financial analysis spreadsheet, interviews, and observations. Using the assessment results, OMEP developed a detailed report outlining AMS's current business situation. The report indicated that 1) AMS had done an excellent job of growing their business without risking their future with excessive overhead and debt; and 2) there were several areas of concern and opportunities for improvement.

The assessment identified several issues that were a concern for AMS, such as their need for: 1) fundamental business controls in the areas of production and capacity management; 2) customer focus and lead generation; and 3) basic financial budget control and analysis. Other issues included reactionary management of the shop schedule, short one-week shop management time horizon, ongoing struggles to ship jobs on time without extraordinary efforts, and reluctance to sell more even knowing they had more capacity, because of the above issues.

OMEP delivered modified Principles of Lean Manufacturing and Value Stream Mapping training to all employees, then provided coaching and training in Lean tools as needed throughout the Lean implementation process. Major initiatives included sales, productions support and capacity planning. In the sales area, AMS had developed their business through relationships and had no formal sales process. Working with OMEP, AMS defined a target customer profile, a market differentiating sales approach, and a sales pipeline data gathering system.

In the area of production support, initial data collection with production quickly led the AMS team to identify the need to improve information flow to the shop floor. Working with the owners and office support staff, standard processes and lead times were developed with visual controls to back them up

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and make problems visible. Improvements came rapidly across all areas of AMS as production information started to flow in a predictable and repeatable manner.

In the area of capacity planning, AMS's lack of a capacity plan made scheduling difficult and on time delivery a continuous battle. Using visual controls along with improved processes and AMS's production management system, a visual capacity plan was developed that now shows the weekly workload. System improvements have allowed AMS to create a standard lead time of four weeks, and a 24-hour quoting response. As a result of OMEP's assistance, AMS has embraced Lean as a business operating system and made major improvements in developing processes and implementing visual controls for production support.

Results:

- * Increased sales by 18 percent.
- * Improved on-time delivery by 33 percent.
- * Improved accuracy of work order information by 300 percent.

Testimonial:

"OMEP was instrumental in evaluating our existing business-as-usual system and prompting us to begin to focus on AMS from a higher level than simply the day-to-day operations. OMEP helped us with a call to action and we have seen major improvements in our margins and understanding of our key indicators. Our sales process is also being established with the help of OMEP. OMEP has been a win-win for the employees and owners of AMS."

Craig Achatz , Owner